World Financial Markets

Morgan Guaranty Trust Company of New York

October 1980

Foreign exchange market developments, 1

The Iraq-Iran conflict and oil prices, 4

The German mark, 6

Statistical appendix, 11

Foreign exchange market developments

Foreign exchange markets in the past three months have been dominated by a strengthening of the yen, a weakening of the mark, and a continued firming of the British pound. Since the beginning of August, the Japanese yen has risen by about 6% against the dollar and by 7% on an effective basis (see Table 1), climbing at one point to Y206 per dollar, its highest level since March of 1979. In contrast, during the same three-month period the mark has fallen by about 5% against the dollar. However, since other EMS currencies have also weakened against the dollar, the mark's depreciation on an effective basis has been only about 2%. Sterling has appreciated by about 4% against the dollar in this period and by 7% on a trade-weighted basis, and it is now at its highest level in more than seven years.

These currency movements, and the appreciation of the dollar against the Canadian dollar and the Swiss franc, have left the dollar up about ½% on a trade-weighted basis in the latest three months (see chart). This contrasts with a 9% drop in the value of the dollar on an effective basis in the preceding four-month interval.

The appreciation of the yen reflects improvement in both Japan's current account and capital account transactions. Japan's current account deficit declined from a seasonally adjusted annual rate of more than $18 billion in the first half of this year to a $6½ billion rate in the third quarter, with the September figure showing a surplus for the first time in fifteen months. The narrowing was mainly a consequence of a 20% annual-rate drop in merchandise imports in the third quarter, reflecting the weakening trend of the Japanese economy since last spring and subsequent inventory reductions. While merchandise exports advanced at a respectable 12% rate, this represented a substantial slowing from increases in the first half of this year. With the Japanese economy expected to remain sluggish through early 1981, Japan's current account deficit is now expected to be in the vicinity of $14 billion for 1980 and to be roughly half that in 1981.

In the third quarter Japan recorded sizable net long-term capital inflows of about $2.7 billion. Foreign purchases of Japanese equities accounted for most of these inflows, with the vast majority of purchases reportedly coming from Middle Eastern countries and U.S. and British

Effective dollar exchange rates
Monthly averages except latest plotting
March 1973=100

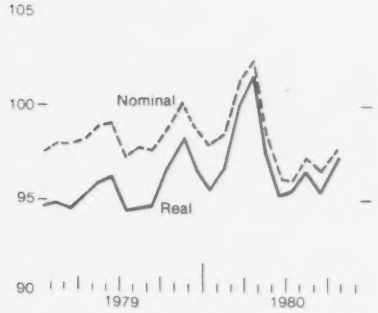


Table 1

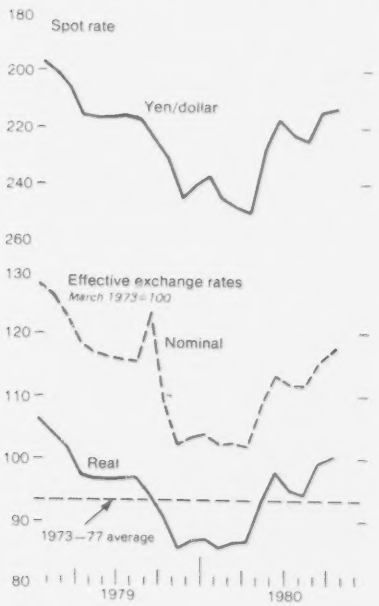
Exchange rate changes from August 1, 1980 to October 28, 1980

in percent vis-a-vis U.S. dollar and on trade-weighted average basis

	vis-a-vis U.S. dollar	*trade-weighted average basis*
U.S. dollar	—	0.5
Canadian dollar	—1.4	—1.5
Japanese yen	6.2	7.4
British pound	4.2	7.3
German mark	—5.2	—2.1
French franc	—4.5	—1.0
Belgian franc	—5.7	—2.3
Dutch guilder	—4.5	—1.0
Italian lira	—5.7	—2.5
Swiss franc	—2.2	1.0

Japanese Yen

Monthly averages except latest plotting



pension funds. Renewed investor confidence in the yen reflects the favorable performance of the Japanese economy relative to other industrial countries, the improved inflation climate, the competitiveness of the Japanese economy, and the country's rapid adjustment to the second oil shock.

Nonetheless, there is still considerable uncertainty about whether the large capital inflows will persist. With the yen already above its 1973-77 average level on a real effective basis (see chart) and the protracted disruption in the Middle East, the Japanese authorities stepped up their intervention to moderate the yen's appreciation while moving gradually in the direction of easing monetary policy. The Bank of Japan is expected to reduce the discount rate by 75-100 basis points in the next few weeks, after cutting the rate by 75 basis points in August to 8¼%. This, along with higher U.S. interest rates, contributed to some weakening of the yen very recently from its 1980 peak level.

In contrast to the Japanese situation, the German authorities recently have had to step up intervention to support the mark. Net dollar sales by the Bundesbank are estimated to have approached $2½ billion in the last three months, bringing the cumulative figure for this year to over $10 billion. Pressures on the mark have emanated principally from Germany's large current account deficit, which was running at a $16½ billion seasonally adjusted annual rate in the three months ended September, despite a sharp drop in industrial production and an overall weakening of the economy. With the German recession expected to be worse than had been anticipated, some reduction in Germany's current account deficit seems likely in the remainder of this year and in 1981. Nevertheless, because of diminished export prospects, the German deficit could be the largest in the world in the 1980-81 period, leading some German industrialists and economists to argue for mark depreciation (see accompanying article).

In addition, the German authorities have had to contend with net direct investment and other capital outflows. Under these circumstances, the authorities feel it is important to maintain the mark's image as a strong currency to attract foreign capital. The Bundesbank therefore has refrained from lowering the discount rate, although some $2.2 billion of added liquidity is being injected into the banking system by the end of this month -- an action that may lead to some easing of money-market rates (see charts).

With the mark hovering close to the lower limit of the EMS band, expectations of an EMS currency realignment centering around a revaluation of the mark have dissipated. In fact, the French and the Dutch authorities, whose currencies are at the upper limit of the band, have been intervening recently on behalf of the mark. To ease exchange market pressures and at the same time counter recessionary forces, the Bank of France also lowered the principal money-market rate from 11½% to 11¼%, while the Dutch central bank reduced the discount rate from 8½% to 8%. It now seems that a realignment of EMS currencies is unlikely in the months ahead, with the possible exception of a depreciation of the Italian lira. Italy's inflation rate is more than 10% above the average for the EMS, and its trade deficit has continued to deteriorate.

The strength of sterling partly reflects a short-term improvement in the current account balance, which moved to an $8¾ billion annual-rate surplus in the three months ended September, a much better

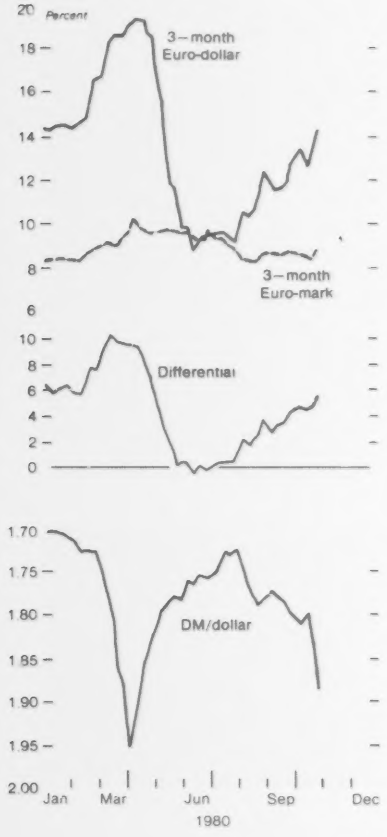
Table 2

Three-month Euro-currency deposit rates

in percent per annum

	Apr. 7 1980	Aug. 1 1980	Oct. 28 1980
U.S. dollar	19.69	10.50	14.62
Canadian dollar	15.62	10.62	12.38
Japanese yen	15.25	12.12	9.38
German mark	10.19	8.44	8.81
British pound	18.44	16.25	16.62
French franc	14.00	11.75	11.62
Swiss franc	6.87	5.44	5.38

Interest rates and DM/$ exchange rate



performance than expected earlier this year. While the unusual severity of the British recession is chiefly responsible, the surplus is in marked contrast to the large deficits recorded by most other industrial countries. British interest rates have remained relatively high as the authorities have refrained from reductions in light of the very high rate of money supply growth following the elimination of the Bank of England's controls affecting increases in banks' liabilities. There has also been a marked deceleration in the inflation rate. Most of the decline in the generally reported twelve-month rate, which was under 16%, down from nearly 22% this spring, reflects the large value-added-tax increase in June 1979. But there has also been a pronounced slowing in month-to-month price rises, with increases over the last three months down to an 8% rate, excluding seasonal foods. Signs of moderation in wage settlements in coming months point to continued improvement in the twelve-month comparison. Finally, assessments of sterling have been affected by Britain's self-sufficiency in oil. This strengthens Britain's position relative to other countries in the event of shortages and price increases.

The dollar's overall stability in the past four months is partly due to a strong U.S. trade and current account performance. During July and August of this year the U.S. merchandise trade deficit on an FAS-FAS customs basis fell to an annual rate of only $6 billion from a level of $20 billion in the second quarter. This points to a sizable U.S. current account surplus in the third quarter.

The future direction of the U.S. current account balance clearly hinges on the pattern of economic recovery in the United States. While the preliminary estimate of real GNP for the third quarter suggests that the economy may have bottomed out this summer, there are several reasons for expecting recovery to be very modest. The principal factor behind the 1% annual-rate increase in real GNP was a 5.2% annual-rate rise in consumer spending, which was partly a consequence of a boost in social security benefits and a decline in the personal savings rate. Yet, with real disposable incomes expected to rise very slowly next year even assuming a $20 billion personal tax cut, further reductions in the already low savings rate would be required to sustain the pickup in consumer spending. Moreover, the recovery in housing, which was underway in the third quarter of this year, seems likely to be squelched by higher mortgage rates. Some further decline in business capital spending can also be anticipated, in view of the recent increases in interest rates and the outlook for weak growth in final sales. Finally, the weakness of economic activity abroad should affect U.S. export volume. These factors suggest that real GNP in the United States may grow by only about 2% from the fourth quarter of 1980 to the fourth quarter of 1981, which would make it one of the weakest U.S. recoveries on record. This should restrain import volume sufficiently to enable the U.S. current account to be virtually balanced this year and in sizable surplus next year.

The dollar has also benefited from the three-to-four percentage point rise in short-term U.S. and Euro-dollar interest rates from their levels in July and the one percent increase in U.S. bond rates. With interest rates in most foreign industrial countries relatively unchanged, this has had the effect of widening interest rate differentials in favor of the dollar (see Table 2) and of inducing net capital inflows to the United States. U.S. corporations, for example, have raised more than

$1.5 billion in funds from the Euromarkets since early September.

The rise in U.S. interest rates partly reflects an upward revision of inflation expectations in the United States. Food prices, after having declined at the wholesale level last spring, have been rising rapidly in the past three months and are expected to continue climbing next year because of drought conditions in various parts of the United States. On top of this, mortgage rates have been rising in line with other interest rates and should affect the consumer price index in the months ahead, after it increased at a 12.7% rate in September.

Rapid U.S. money supply growth has also fueled expectations that the Federal Reserve will have to take steps to bring the expansion under control. Since the end of April, M-1B has increased at about a 17% seasonally adjusted annual rate after it had declined in the preceding three months. As a consequence, it is now above the upper band of the target ranges. U.S. interest rates, therefore, seem likely to remain high for some time to come. With interest rates in Europe and Japan likely to move downward given the improved inflation performance abroad, interest rate differentials should remain favorable to the dollar, providing some offset to the adverse U.S. inflation differentials.

The Iraq-Iran conflict and oil prices

The fairly optimistic predictions of a month ago about continued sluggishness in world oil markets and moderate oil price rises next year have become less certain as a result of the eruption of hostilities between Iraq and Iran. The war has eliminated 4.7 million bpd of oil production from the two countries and has removed 4 million bpd of exports from world oil markets. The latter quantity is equivalent to 8%-9% of non-Communist world oil consumption outside OPEC, slightly smaller than the 10% of oil consumption represented by the cessation of Iranian exports during its revolution.

It is true that the oil-importing countries are now much better prepared to withstand an interruption in oil supplies than they were at the time of the Iranian revolution. The weaker pace of economic activity in the industrial countries today, together with the oil price increases of 1979-80, produced a 6% decline in the aggregate oil consumption of the twenty-one IEA (International Energy Agency) members during the first half of 1980. The outlook for continued weak economic activity throughout the industrial world and the continuing conservation efforts suggest that oil consumption is likely to remain very sluggish during 1981.

The reduction in oil consumption during the past twelve months, together with the extra Saudi oil production of 1 million bpd, permitted the buildup of large inventories, estimated at 5 billion barrels by late summer. Of this, nearly 10% represents stocks over the "normal" seasonal requirements. Also, a 10% cutback in oil production planned by some OPEC members appears to have been postponed, while Saudi Arabia and some other Gulf oil-exporters have reportedly decided to raise their production by a total of 1-1.5 million bpd. This additional oil supply could reduce the shortfall to between 2.5 and 3 million bpd, implying that it would take four to five months to work down the surplus oil stocks.

The view that the present oil supply situation is quite comfortable has been reflected in oil markets, where spot price increases have

been relatively contained (about $5 per barrel so far from September) and where the volume of spot transactions has remained fairly small. Contributing to this have been IEA and individual government efforts to discourage recourse to the spot market.

Nevertheless, the situation is not without concern. An important issue is that oil stocks, while ample in the aggregate, are not distributed evenly among countries. The bulk is held by a few large industrial countries, particularly the United States, which is the least dependent on oil imports from Iran and Iraq. Those most dependent are Brazil, India, Portugal, Turkey, France, Spain, Greece, Australia, Italy, Austria, Japan, Ireland, Sweden and some East European countries. Not all of them have ample stocks, and the reduced role of the major international oil companies in marketing OPEC oil because of the greater prevalence of government-to-government contracts has impaired the system's ability to even out oil shortfalls among countries. Although both the IEA and the EC have emergency oil allocation schemes, most of the countries affected by the present conflict are not members of either organization. Moreover, timely implementation of these schemes has proven difficult in the past.

Obviously, the major determinant of the impact of the war on oil prices will be the length of the conflict and the severity of the damage to the oil facilities of Iraq and Iran. The war is already one month old with no signs of abating. The damage to the oil facilities of both countries appears to be quite extensive, and oil production reportedly is not likely to reach its pre-war levels until a year after the restoration process begins.The oil fields appear not to have been destroyed, but the facilities that pump, carry, and help load crude oil at the export terminals are reported to have been severely damaged. Oil refineries have also been destroyed, especially in Iran, although this affects primarily these two countries rather than the oil importers. Finally, even though Iraq has three pipelines to the Mediterranean, with effective capacity of over 1.5 million bpd and the prospect of quick repair, the flow is likely to be limited to only one pipeline and to 700,000 bpd because of political factors. Even assuming, therefore, that the conflict were to be settled by end-1980, with repairs and a limited pipeline flow beginning soon thereafter, the surplus stocks held by oil-importing countries would be exhausted in a matter of months and price pressures could begin to appear.

In light of this, the expectation that average oil prices would rise roughly in line with inflation next year, to about $35-$36 per barrel, could turn out to be too optimistic. While it is still too early to predict oil market behavior and to quantify the war's impact on oil prices, past experience indicates that even a small reduction in oil supplies tends to have a disproportionate impact on oil prices. The shortfall of 2 million bpd in 1973-74 produced a quadrupling of oil prices, while a gap of roughly the same magnitude during the Iranian revolution led, with a lag, to more than a doubling. Although, as noted, the present situation is quite different, the potentially significant impact of this latest supply disruption on oil prices should not be ignored.

The consequence of another sharp jump in oil prices so soon after that of 1979-80 would be a major shock to the world economy. At current oil price levels and export volumes, excluding those from Iraq and Iran, every 10% price rise adds about $25 billion to the annual oil revenues of OPEC and over $30 billion to the net oil bill of oil-importing coun-

tries. If the present conflict were to result in an *average* oil price increase of 25% in 1981, to $40 per barrel (with spot prices higher), the OPEC current account surplus would grow from the estimated level of $118 billion in 1980 to $125-$130 billion next year, instead of declining to $90 billion as implied by the lower oil price assumption. At an *average* oil price of $50 per barrel, the OPEC surplus could be on the order of $175-$200 billion.

Such developments would have a very depressing effect on the world economy and would set back anti-inflationary efforts. The even slower economic growth in the industrial world and the greater deterioration in the LDCs' terms of trade would cause their deficits to widen further, aggravating the difficult financing situation that some countries are expected to face next year, even under moderate oil price assumptions. Indeed, it could result in a financing situation fairly similar to the most pessimistic of the alternative scenarios presented in the September issue of this publication.

Again, it is too early to predict the effect of the Iraq-Iran war on oil prices. But, with the distinct possibility of a renewed buildup of pressures in oil markets sometime next year, it is not too early for governments and the private sector in oil-importing nations to take steps that can help avert any onset of panic buying as the gravity of the outlook is more widely perceived. There is still plenty of room for further reductions in energy consumption, although this admittedly may be difficult to achieve on a voluntary basis while current supplies seem to be ample. Existing stocks in the industrial world can be used to cushion the impact of the Iraq-Iran conflict if they are drawn down in a timely fashion and if there is a judicious sharing of inventories with the most affected countries.

Also essential to making up the war-induced shortfall is an increase in output by other members of OPEC and by nonmembers such as Mexico. By thus helping to avert a serious blow to the world economy, they would be serving their own interest.

For the longer run, stability in oil prices requires a greater degree of political stability in the area now torn by conflict. While the world has adjusted, at a severe price to growth, to the Iranian revolution and to the sharp reduction in that country's oil production, a prolonged absence of Iraqi oil due to political upheaval would be quite serious. Before the war began Iraq's production was 3.5 million bpd, the second-highest in OPEC and accounting for nearly 13% of the total, while its oil potential is probably second only to that of Saudi Arabia among OPEC. Indeed, it is in part because of the 1 million bpd increase in Iraqi oil output during the past two years that the world's adjustment to the loss of Iranian oil was made possible.

The German mark

The combination of a declining German mark and lower German inflation relative to other countries has brought the inflation-adjusted weighted exchange rate of the mark to about 7% below its 1979 average and 6% under the 1973-77 average (see chart). The downward shift in the real effective exchange rate is a reflection not only of short-term, cyclical factors but also of a longer-run deterioration of the trade balances in energy, manufactures, and services. In the short term, the balance of payments has been worsened because GNP in Germany in 1979 grew nearly 2% faster than in its major trading partners. In the first quarter of this year the differential was an even larger 7%. Since

German mark
monthly averages except latest plotting

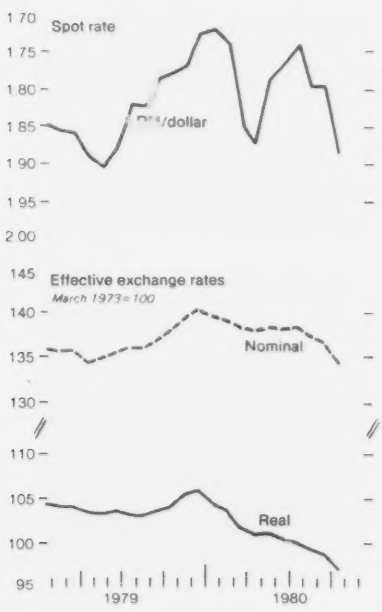


Table 3

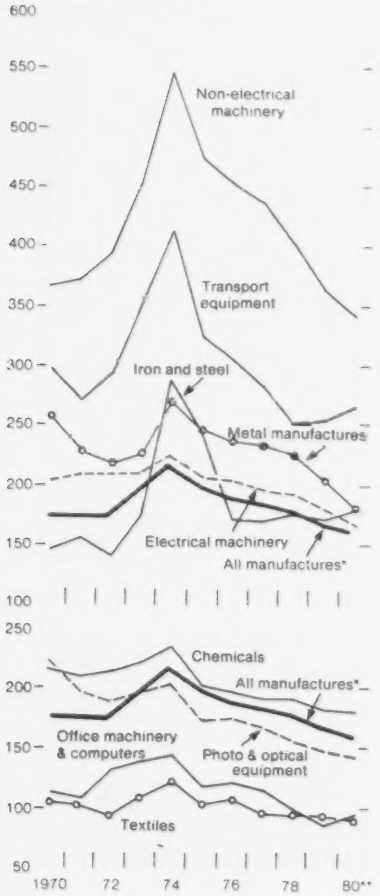
Germany's current account trends

in billions of dollars

	1970-73 (average)	1974	1975-78 (average)	1979	1980 (forecast)
Trade balance (FOB-CIF)	7.1	20.2	17.2	13.8	8.0
Energy	—2.7	—10.2	—13.1	—25.2	—35.0
Manufactures	18.7	42.5	45.4	59.1	65.0
Food, raw materials, other	—8.9	—12.1	—15.1	—20.2	—22.0
Trade balance (FOB-FOB)	9.1	22.2	19.9	17.7	13.5
Invisibles	—7.3	—11.9	—14.7	—23.2	—28.5
Tourism	—2.6	—4.8	—7.1	—12.2	—13.3
Other services	—0.7	—0.9	0.1	0.4	—2.3
Transfers	—4.0	—6.2	—7.7	—11.4	—13.0
Current account balance	1.8	10.3	5.2	—5.5	—15.0

German industrial trade

exports as % of imports



*Excluding food, drink, and tobacco

**1st 7 months, seasonally adjusted

then, however, Germany's economy has actually declined, and only slow recovery is anticipated through next year. The swing to a negative growth differential should boost the volume of Germany's exports and should restrain its imports, helping to improve the trade figures from now on.

The higher price of oil has considerably worsened the German balance of payments relative to those of resource-based economies like the United States and the United Kingdom. Moreover, there is a risk that the relief from the negative effects of rapidly rising oil prices, experienced only in recent months, could now be set back by a new upsurge stemming from the supply effects of the Iraq-Iran war. This is the case especially in view of Germany's above-average dependence on the spot oil market, where prices are first affected.

The other longer-term, more deep-seated problem is a weakening of German performance in its traditionally strong industrial sector. The ratio of total manufactures exports to manufactures imports reached a peak of 217% in 1974, from which it fell steadily to 165% in 1979 and 159% in the first half of 1980, irrespective of intervening cyclical fluctuations (see chart). Consequently, it is apparent that net manufacturing exports cannot be counted on, as they could in the mid-1970s, to make up for high net imports of goods and services in other sectors of the current account. Moreover, the weakening of the incentive to invest in productive facilities in Germany, caused by higher costs there than in other countries, has resulted in a steadily increasing direct investment capital outflow.

A decline in manufacturing export/import ratios has been caused not by a weakening German share of world manufactures trade, which in fact has been roughly maintained, but by increased imports, with German industry being successfully challenged in its home territory. In the future, a rise in Germany's world export market share and/or a reduction in its propensity to import will be necessary if the manufactures trade balance is to improve sufficiently to cover the rising deficits in other sectors of the balance of payments.

Current account structure

In the German current account, deficits in food and agriculture, fuels, raw materials, tourism, remittances (by "guest-workers" to their homelands), and official transfers are now only partly offset by surpluses in transportation, investment income, and most importantly, industrial exports. Table 3 shows the evolution of major sectors in the 1970-1979 period and the forecast for 1980. In 1974, the worsening oil balance and deteriorating services account were easily accomodated by the much increased manufactures trade surplus. But the further deterioration of the oil and services balances in 1979 and 1980 has not coincided with an adequate manu-

Table 4

Energy consumption relative to output

% change in ratio of total primary energy consumed to GDP

	1973-78	1978-85
West Germany	—6.3	—6.7
France	—10.0	—7.0
United Kingdom	—12 3	—7.3
Italy	—13.3	2.7
Japan	—13.0	—5.3
United States	—5.8	—11.0
Canada	—8.8	—9.6

Note: based on estimates of International Energy Agency (IEA), except for France, 1978-1985

Table 5

West Germany: supply and consumption of primary energy

in millions of tons of coal equivalent

	1973	1974-78 annual average	1979
Domestic production	172	170	176
Coal	130	125	125
Crude oil	10	8	7
Natural gas	22	22	23
Nuclear electricity	4	9	14
Hydroelectricity and other	6	6	8
Imports	255	247	280
Coal	11	10	11
Petroleum and products	221	201	220
Natural gas	17	31	44
Electricity	6	5	5
Total primary energy available	426	417	456
Consumption	426	417	456
Domestic usage, changes in inventories	380	374	409
Exports and bunkers	46	43	47
% of total domestic consumption of primary energy			
Petroleum	55.2	52.2	50.7
Coal	30.9	29.0	27.9
Natural gas	10.2	14.2	16.2
Nuclear electricity	1.0	2.3	3.4
Hydroelectricity	2.2	1.8	1.4
Net energy imports as a % of total primary energy consumption	56.5	57.0	58.1

factures trade balance improvement, as export growth has lagged behind import expansion.

Net energy imports rose from an average of 1% of GNP in 1970-73 to 2¾% in 1974-78, to 3¼% in 1979, and are forecast at 4¼% of GNP in 1980. Net energy imports will remain a negative factor for the German balance of payments in the 1980s, although they probably will not worsen in real terms.

The volume of German net oil imports rose nearly 4½% in 1979, but this year it is expected to return to the 1978 level of about 2.7 million barrels per day. The jump in the value of net oil imports is mainly the result of the 60% rise in price in 1979 and the 45% increase in 1980. Between 1980 and 1981 German net oil imports are expected to rise much more moderately, assuming a further 2½% reduction in volume.

The volume of natural gas imports rose about 16% between 1978 and 1979. Although the price increase for gas was much more modest than that for oil, the added cost still was significant since the volume of gas imports is now about 20% of that of petroleum. Moreover, gas exporting countries have been demanding and getting higher prices, nearing parity with crude oil in some cases.

Germany has large quantities of domestic coal, but much of it is expensive to mine and of less than optimum quality. Consequently, coal imports are being stepped up, for direct use and conversion to oil and gas. The nuclear program has been greatly delayed by environmental and legal obstacles. According to the latest official forecast, nuclear electricity generation in 1985 will be less than half the 1974 forecast, and even this may prove an overestimate.

Conservation and efficiency-boosting efforts have been only moderately successful to date. This is partly because Germany was slow to increase taxes on gasoline. As shown in Table 4, there was a decline in German energy usage relative to GNP between 1973 and 1978, but the extent of the drop was below the average for Japan and the major industrial countries in Europe. Despite some recent moves to tax energy usage more heavily, a slightly lower rate of decline for Germany is expected up to 1985 compared with 1973-78.

Domestic production of total energy made no headway in the 1970s, while the volume of energy imports continued to increase (Table 5). Although the rise in gas imports represents a continuing effort to diversify Germany's sources of energy, both as to type of fuel and geographic source, Germany has not moved very far in reducing the extent of its dependence on foreign energy sources since a peak was reached in 1977. As a result of all these factors, the relative financial burden of energy imports may be little changed.

Apart from food and raw materials, whose net import cost to the German economy is unlikely to change dramatically over the next few years (unless the EEC's Common Agricultural Policy is reformed), the invisibles area is the other major deficit sector in the current account. The deficit increased from an average of 3% of GNP in 1974-78 to 3.6% in 1979, and it is expected to reach 4% of GNP ($28.5 billion) this year. The two major contributors to this trend are transfers and tourism. Germany's net payments to the European Communities (EC) have risen steadily, and they are receiving new impetus from the agreement with the United Kingdom to reduce that country's net contribution to the EC budgets. Germany's share of this arrangement is expected to add $600 million to its total net transfers deficit in 1981.

Net tourism outlays have risen strongly as a result of general affluence in Germany and the attraction of generally lower prices for tourist facilities abroad. Increases in the length of annual vacations and their coordination with school holidays also have been important. There may well be some leveling off of the rate of increase in the net invisibles deficit after 1981, but the deficit will probably not decline in relation to GNP.

Trends in industrial competitiveness

Because the burden of deficits on food, fuels, raw materials, and invisibles may continue to grow, albeit less rapidly than in the past, the continuing decline in the coverage of manufactured imports by exports is of concern. The high real effective exchange rate of the mark in 1973-79 was achieved because export-led booms in 1970 and 1973, and a restrictive domestic policy stance in 1973-74 that restrained imports, caused a rapidly increasing current account surplus. Between 1968 and 1974 the mark rose 21% in real terms if Germany's favorable wholesale price inflation differential is removed from the 55% increase in the nominal effective rate, but by an even higher 37% if the nominal rise is adjusted for unit labor costs in manufacturing (see chart).

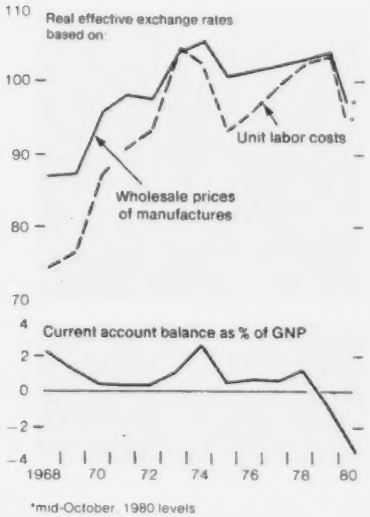
For some years, German industry appeared able to bear the burden of excessive costs, particularly for labor. For example, in 1979 average German manufacturing wages reached $6.74 per hour, versus $6.69 for the United States — a comparison that excludes most fringe benefits and employers' social insurance payments, which are much higher in Germany (about 70% of basic pay) than in the United States (40%). Wage comparisons with most other European countries and Japan are even less favorable to Germany. Despite the high labor costs already prevailing in the 1975-78 period, the ratio of German industry's manufactures exports to its imports was comparable with that of the 1971-73 period, although it never again matched the peak achieved in 1974. With improved terms of trade from the higher real mark exchange rate offsetting adverse oil price movements, substantial current account surpluses continued to be recorded in 1975-78.

The causes of this lasting trade strength in the face of less competitive German costs and prices included customer loyalty and the desire to secure compatibility with previously purchased German capital equipment, the high quality of German goods, an excellent record in delivery and service, rapid and well researched adaptation of products to changing requirements in the market, and the existence of large and modern plant and equipment installed during the German investment booms of the 1960s and 1970s.

These strong points have been somewhat eroded, however, and the effect has become increasingly visible in trading results. Other countries have been prepared to expand their capacity in order to compete, and customer loyalty generally seems to have been strained by the sustained high price of German products. In addition, German product innovation, product quality, delivery and service are increasingly under challenge, most notably by Japanese industry. An example of the effect of this challenge is that in the twelve months to the first half of 1980 OPEC imports were up by 56% from Japan, 40% from France, 31% from Italy, and 23% from Germany.

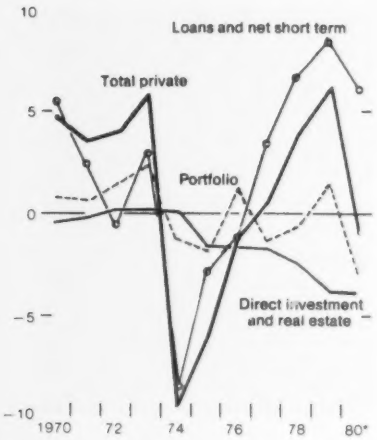
The relatively weak development

Exchange rates and balance of payments



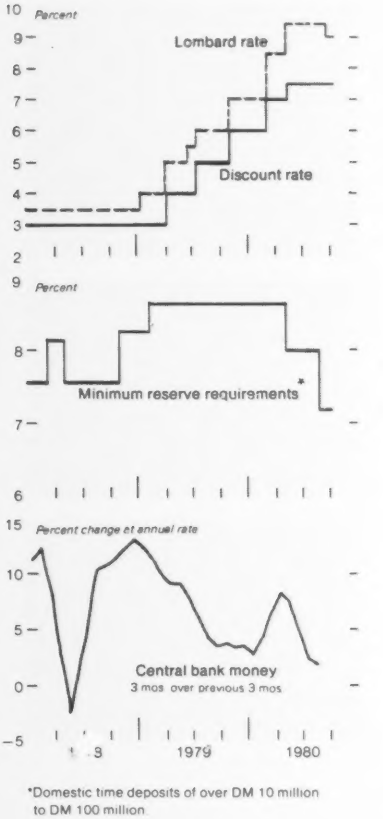
*mid-October 1980 levels

Private capital flows
in billions of dollars



*1st 8 months at annual rate

Indicators of monetary policy



*Domestic time deposits of over DM 10 million to DM 100 million

of global investment spending in the past few years, coupled with the fact that more than 50% of German exports are capital goods, has dampened the overall export trend. Beyond this, however, in most individual industrial sectors the ratio of German exports to imports has steadily declined since 1974 (see chart). For example, in non-electrical machinery (19% of total exports in 1979) exports fell from 536% of imports in 1974 to 365% in 1979 and 340% in the first seven months of 1980. The trend has been similar for transport equipment including cars (17% of 1979 exports), for chemicals (13% of exports), and for most other industrial sectors. Moreover, in some high technology industries, performance has been worse than in more traditional sectors, and their ratio of exports to imports is not high. In the case of office machinery and computers, there was only a weak increase up to 1974, then a fast falling away in 1975-78, followed by a decline to under 100% (i.e., imports higher than exports) in 1979-80. For photographic, scientific, and optical apparatus, the German export/import percentage declined throughout the last decade, from 224% in 1970 to 144% so far in 1980.

Private capital outflows

In addition to the continuing current account deficit, Germany has to finance a steadily growing capital account deficit on private direct investment plus real estate. This account, in balance or surplus until 1974, deteriorated to a $3.9 billion deficit in 1979, followed by one of $2.6 billion in the first eight months of this year. The relative cost penalty from investing in Germany has caused both multinational and German companies to switch their investments elsewhere. Long-term fears about Soviet domination of Europe and the desire for vacation homes abroad have prompted the purchase of real estate outside Germany.

As can be seen from the accompanying chart, private portfolio capital flows have been erratic, but they have also been in deficit this year. Advances and loans plus short-term private capital flows generally have been affected by changes in the nominal mark exchange rate and by speculative influences. Although the summer inflow offset last spring's outflow, the speculation against the mark this fall could have put those transactions back into deficit. Assuming a $5 billion total private capital outflow for 1980, the financing requirement rises from $15 billion (the forecast current account deficit) to nearly $20 billion. As a result, the deficit has had to be financed by reserve drawings of well over $10 billion and sales of government debt to overseas official holders, mainly OPEC, of at least $5 billion.

Policy implications

The German authorities' initial reaction to the current balance of payments and exchange rate pressures has been to hold up interest rates with a view to funding the deficit with as little depreciation of the mark as possible. In addition, high interest rates — by squeezing the economy — could further lower imports and reduce the current deficit. However, this policy has several drawbacks. With monetary expansion below the lower limit of the target range, such additional deflationary pressure in Germany is undesirable at a time of declining GNP and inflation, which, at about 5%, is already the lowest among the major industrial countries. In view of Germany's leading position in the Euro-

pean economy (one quarter of Europe's GNP) the whole continent would suffer similarly. An attempt to achieve an unduly rapid cure for the current account deficit through demand deflation is inappropriate since Germany can and should accept a proportion of the substantial medium-term deficit of industrialized countries that is the counterpart of the OPEC surplus. Moreover, to the extent that high interest rates hold up the mark, the improvement of industrial competitiveness necessary for longer-term current account adjustment would be at least postponed and made dependent on the *gradual* effect of Germany's favorable inflation performance.

Rather, interest rate policy should be focused on preventing an unnecessarily severe downswing, and, under a floating exchange rate regime, should not be dominated by the maintenance of a target exchange rate. In fact, there is no major dilemma for the German authorities since the requirements of rebuilding industrial competitiveness and of funding the current account deficit (while lowering interest rates in a recession) both point to letting the exchange rate float freely to the point at which it is supported in the market — by private as well as by official capital inflows. Without doubt, such a policy would risk some adverse effects on inflation. However, a major drop in the nominal exchange rate is unlikely. Already, normal cyclical developments are producing improved trade figures, and this should continue. Moreover, market operators know that in due course the nominal exchange rate will again reflect Germany's favorable inflation differential. Most of the immediate change needed should be against the yen, since industrial competitiveness is weakest versus Japan, which also faces the prospect of relatively low inflation. Any further realignment against the dollar is likely to be more modest and temporary, since the United States still does not have an effective policy to reduce inflation significantly.

Statistical appendix

for key to data in tables see the September 1980 issue of World Financial Markets

Effective exchange rates, 12

Real effective exchange rates, 12

Euro-currency market size, 13

Euro-currency deposit rates, 13

Euro-currency bank credits, 14

International bond yields, 14

New international bond issues, 15

Central bank discount rates, 16

Day-to-day money rates, 16

Treasury bill rates, 17

Representative money-market rates, 17

Commercial bank deposit rates, 18

Commercial bank lending rates to prime borrowers, 18

Domestic government bond yields, 19

Domestic corporate bond yields, 19

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.6	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April	102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
May	98.4	83.6	109.4	78.6	138.1	90.3	53.3	110.6	118.2	163.7	121.4	91.5	103.5	88.1	74.8	71.5
June	96.2	84.9	113.8	78.7	137.9	90.6	53.1	110.8	118.6	164.3	121.7	92.0	103.0	87.8	74.8	71.4
July	96.0	84.8	111.7	79.3	138.2	91.1	52.7	110.9	119.1	165.5	122.2	92.5	102.8	87.8	75.1	70.0
August	97.2	84.5	111.1	80.5	137.2	90.7	52.7	110.2	119.0	163.8	122.0	91.8	103.3	88.2	75.7	69.6
September	96.4	83.9	115.8	81.4	137.0	90.4	52.4	109.9	119.1	164.7	121.8	91.4	103.3	88.2	75.4	68.4
5	96.2	84.3	114.2	81.6	137.3	90.4	52.4	110.0	119.1	164.7	121.9	91.4	103.3	87.9	75.4	68.8
12	96.2	84.0	115.1	81.3	137.2	90.4	52.5	110.1	118.9	165.1	122.0	91.6	103.4	88.0	75.4	68.4
19	96.2	83.7	117.2	80.8	137.0	90.4	52.5	110.0	119.1	164.9	122.0	91.4	103.2	88.2	75.2	68.3
26	96.7	83.8	116.0	81.7	136.7	90.3	52.3	109.8	118.9	164.4	121.7	91.0	103.1	88.6	75.4	68.5
October 3	96.5	83.4	119.1	81.4	136.3	90.2	52.2	109.7	118.8	165.2	121.7	91.0	103.1	88.7	75.0	68.3
10	96.1	83.7	119.3	81.4	136.5	90.3	52.2	109.6	118.8	165.8	121.6	91.2	103.0	88.6	75.2	68.2
17	96.3	83.8	120.2	82.5	135.5	90.1	52.2	109.5	118.5	166.0	121.3	91.1	103.1	88.6	75.2	68.0
24	96.9	83.7	119.4	84.4	134.8	89.8	51.9	108.7	118.0	166.7	120.4	90.0	103.1	88.8	75.4	68.4

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.7	93.5	97.1	100.2	115.4	107.9	101.4	90.4	99.2	86.0	109.1
1979																
October	96.8	92.7	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.2	92.3	85.3	121.3	105.7	99.8	93.8	96.1	98.0	112.4	109.5	99.8	89.5	100.9	86.7	109.9
December	96.5	92.9	86.9	123.3	105.9	100.4	95.2	95.4	98.5	112.6	109.2	94.8	89.1	100.5	86.3	107.4
1980																
January	95.5	94.8	87.0	128.4	104.7	99.3	96.1	94.6	99.8	109.9	109.2	92.8	89.3	100.6	85.4	112.0
February	96.6	94.5	85.3	131.7	103.6	99.4	96.8	93.8	99.1	106.9	109.8	91.5	91.4	101.4	86.9	112.0
March	100.1	92.1	86.4	132.8	102.1	99.8	95.5	92.7	98.4	103.7	109.0	90.2	92.9	101.7	87.4	111.2
April	101.7	90.4	86.9	134.1	101.3	100.3	95.0	92.6	98.3	104.6	107.9	90.2	92.5	101.1	87.1	107.0
May	97.5	90.7	93.9	135.4	101.7	100.5	95.5	92.7	99.0	105.7	108.7	90.8	91.1	100.7	85.8	104.3
June	95.2	92.0	97.7	136.8	101.1	100.9	95.5	92.3	100.0	105.3	109.1	90.8	90.5	100.4	85.8	105.2
July	95.6	91.7	95.1	138.2	100.5	102.5	94.4	91.6	101.1	105.6	109.8	91.9	91.1	100.4	86.6	103.8
August	96.5	91.8	94.6	140.1	99.1	102.6	94.9	90.6	101.8	104.8	110.0	91.1	91.6	101.1	87.5	102.7
September	95.0	91.5	99.3	141.5	98.8	102.8	94.8	89.9	102.5	104.8	109.9	90.8	91.4	101.3	87.5	101.3

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	
										Marr	Junr
Estimated size											
*Gross*r	150	205	310	390	480	590	725	925	1 185	1 230	1 300
Liabilities to nonbanks	30	35	55	75	80	100	125	170	230	250	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	155	155	n.a.
*Liabilities to other banks*a, r	105	145	215	255	330	405	490	635	800	825	n.a.
Net	85	110	160	215	250	310	380	485	600	625	650
Claims on nonbanks	35	45	65	100	115	150	195	245	295	305	n.a.
*Claims on central banks and on banks outside market area*b	35	45	75	95	115	135	155	195	245	260	n.a.
*Conversions of Euro funds into domestic currencies by banks in market area*c	15	20	20	20	20	25	30	45	60	60	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	72	74	n.a.

a includes unallocated liabilities
b includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Euro-dollar:											
overnight	7.12	10.62	14.00	13.75	19.25	12.25	9.37	9.50	9.12	10.50	12.50
7-day fixed	6.31	10.62	14.00	14.62	19.37	12.75	9.50	9.50	9.25	10.62	12.50
one month	6.87	11.00	14.37	16.12	19.25	14.25	9.87	9.50	9.50	11.19	13.19
three months	7.19	11.69	14.44	16.94	19.69	14.37	10.12	9.75	9.81	12.25	13.81
six months	7.50	12.31	14.44	17.00	19.56	13.69	10.25	9.94	10.06	12.50	13.94
twelve months	7.67	12.00	12.87	16.37	18.00	12.75	10.25	9.87	10.19	12.50	13.69
Euro-mark:											
one month	2.19	3.19	8.50	8.75	8.94	9.06	9.37	9.50	8.69	8.62	8.87
three months	2.50	3.31	8.56	9.31	9.69	9.06	9.37	9.37	8.25	8.50	8.87
six months	2.81	3.69	8.56	9.37	10.06	9.00	9.00	8.81	7.81	8.31	8.87
twelve months	3.06	3.81	8.12	9.44	10.00	8.69	8.50	8.19	7.75	8.12	8.69
Euro-Swiss franc:											
one month	1.31	—.06	5.19	3.75	5.87	5.25	5.56	5.62	5.06	6.00	5.25
three months	1.37	0.00	5.75	5.50	7.12	6.12	5.37	5.69	5.12	5.87	5.75
six months	1.87	0.12	5.87	5.75	7.50	6.25	5.37	5.69	5.25	5.75	5.75
twelve months	2.25	0.62	5.56	5.87	7.00	5.62	5.25	5.12	5.00	5.50	5.62
Euro-sterling:											
one month	6.50	12.00	16.75	17.75	18.00	17.25	17.00	17.37	16.87	16.75	16.25
three months	6.62	12.62	16.75	18.50	18.25	17.25	16.75	16.75	15.62	16.62	15.87
six months	7.12	13.25	16.75	18.37	18.37	16.37	16.12	15.25	14.25	16.25	15.00
twelve months	7.37	13.00	15.25	17.87	17.50	15.37	14.75	14.00	13.25	15.12	14.37
Euro-French franc:											
one month	12.25	10.50	13.87	13.12	13.37	12.50	12.31	12.25	12.37	12.00	11.62
three months	13.25	9.87	14.00	13.87	14.12	12.75	12.50	12.25	12.12	12.12	12.00
six months	14.00	9.87	14.12	14.62	14.50	12.87	12.62	12.25	12.00	12.37	12.56
twelve months	13.25	10.25	13.75	14.62	14.87	13.00	12.75	12.25	11.94	12.62	12.81
Euro-yen:											
one month	0.62	—.69	7.62	9.12	15.00	11.50	12.62	13.00	12.87	11.62	12.50
three months	1.81	0.62	8.31	10.12	15.50	12.50	12.25	12.25	12.25	11.62	12.25
six months	2.75	1.87	8.62	10.37	15.00	11.37	11.37	11.12	11.37	11.12	11.50
twelve months	3.25	2.19	7.94	10.25	13.62	10.37	10.25	9.37	9.75	9.75	10.50

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-Oct	
				Augr	Sepr	Octp	1980	1979
Industrial countries	**17 205**	**28 952**	**27 248**	**2 510**	**2 413**	**4 822**	**27 672**	**19 918**
Australia	360	212	941	—	403	1 369	2 375	187
Canada	3 292	5 705	1 845	200	—	—	657	595
Denmark	868	2 242	1 205	283	10	10	1 359	1 205
Finland	314	550	92	—	—	—	1 040	92
France	2 325	1 915	2 955	200	—	—	1 562	2 735
Greece	204	509	1 010	76	360	18	1 238	885
Ireland	440	616	687	111	—	20	131	687
Italy	1 024	2 485	3 708	760	275	1 300	5 693	2 828
Norway	102	1 517	935	33	—	82	493	848
Spain	1 973	2 426	4 184	50	219	819	3 755	3 919
Sweden	1 446	1 872	1 263	25	—	162	1 370	343
United Kingdom	1 992	3 899	795	200	—	300	1 398	778
United States	826	1 206	2 348	127	725	400	2 259	1 410
Others	1 959	3 798	5 280	445	421	342	4 342	3 406
Developing countries	**20 976**	**37 300**	**47 964**	**3 437**	**3 003**	**2 076**	**26 739**	**41 802**
Non-OPEC countries	13 494	26 902	35 411	2 614	2 318	1 833	17 735	30 408
Argentina	849	1 461	2 965	250	45	300	1 966	2 422
Brazil	2 814	5 634	6 278	582	157	296	2 675	5 670
Chile	591	1 045	867	95	168	91	840	777
Korea	1 265	2 651	3 258	15	65	6	1 205	2 561
Malaysia	212	858	1 168	—	—	—	—	668
Mexico	2 727	7 250	8 243	839	1 000	685	5 127	7 628
Morocco	797	605	500	—	—	—	250	500
Peru	189	—	596	52	—	10	345	523
Philippines	698	2 073	2 067	10	165	150	791	1 493
Taiwan	524	255	1 063	—	211	5	280	986
Others	2 828	5 070	8 406	771	507	290	4 256	7 180
OPEC countries	7 481	10 398	12 553	823	685	243	9 004	11 394
Algeria	723	2 576	1 906	—	—	—	40	1 631
Indonesia	817	1 118	1 061	30	—	35	895	1 061
Nigeria	1 000	825	1 373	54	75	38	651	1 296
United Arab Emirates	1 086	726	401	—	—	—	60	401
Venezuela	1 666	2 054	6 830	475	610	20	5 935	6 080
Other	2 189	3 099	1 373	264	—	150	1 423	925
Communist countries	**3 394**	**3 767**	**7 325**	**512**	**46**	**631**	**2 517**	**6 834**
China	—	—	3 395	67	—	—	139	3 395
East Germany	832	642	796	—	46	181	303	636
Hungary	300	700	260	—	—	300	550	260
Poland	19	374	849	445	—	—	800	776
Others	2 243	2 051	2 025	—	—	150	725	1 767
International organizations	**190**	**160**	**275**	**—**	**—**	**20**	**429**	**275**
TOTAL	**41 765**	**70 179**	**82 812**	**6 459**	**5 462**	**7 549**	**57 357**	**68 829**

a includes multi-national organizations *b* includes regional development organizations *c* includes COMECON institutions *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
U.S. companies:											
U.S. dollar	7.95	8.55	10.13	11.27	11.61	10.98	10.39	9.83	9.99	10.60	10.73
Swiss franc	5.31	5.70	6.61	7.27	7.32	7.19	7.23	7.29	7.28	7.30	7.28
European companies:											
U.S. dollar	8.42	9.21	10.93	12.95	13.07	11.94	11.07	10.53	10.72	11.47	11.71
German mark	6.80	6.84	7.55	8.70	9.33	8.36	7.84	7.76	7.63	7.85	8.31
Governments:											
U.S. dollar	8.42	9.12	10.66	12.07	12.17	11.67	11.06	10.47	10.50	10.90	11.06

New international bond issues

new issues in period, in millions of dollars

	1977	1978	1979	1980			Jan-Oct	
				Aug	Sepr	Octp	1980	1979
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**1 121**	**1 705**	**3 024**	**20 637**	**16 628**
by category of borrower								
U.S. companies	1 130	1 122	2 872	150	373	745	3 491	2 397
Foreign companies	7 347	4 540	7 183	626	470	1 041	7 330	6 115
State enterprises	4 667	3 291	4 524	210	405	933	5 406	4 416
Governments	2 936	3 643	2 433	110	337	257	2 806	2 273
International organizations	1 691	1 529	1 714	25	120	48	1 604	1 427
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	559	1 028	2 295	14 107	10 792
German mark	4 131	5 251	3 626	319	262	450	3 294	3 425
Dutch guilder	452	394	531	137	65	67	882	531
Canadian dollar	655	—	425	43	22	—	279	425
European unit of account	28	165	253	—	12	28	65	145
Other	878	1 025	1 326	63	316	184	2 010	1 310
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**1 094**	**1 343**	**1 369**	**12 156**	**14 193**
by category of borrower								
U.S. companies	40	245	217	—	—	—	219	217
Foreign companies	1 421	2 110	3 463	210	180	401	2 338	3 081
State enterprises	2 427	3 163	3 284	160	288	330	2 311	2 430
Governments	2 043	5 771	7 663	276	533	120	3 732	6 214
International organizations	2 846	3 070	3 122	448	342	518	3 556	2 251
by currency of denomination								
German mark	2 181	3 789	5 379	443	364	281	4 350	3 186
Swiss franc	4 970	5 698	9 777	483	606	636	5 993	9 000
Dutch guilder	211	385	75	—	77	75	259	75
Japanese yen	1 271	3 826	1 833	—	279	48	829	1 523
Other	144	671	685	168	17	329	725	409
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**—**	**275**	**1 000**	**3 004**	**4 117**
by category of borrower								
Canadian entities	3 022	3 142	2 193	—	275	800	1 945	2 173
International organizations	1 917	459	1 100	—	—	200	550	975
Other	2 489	2 194	1 222	—	—	—	509	949
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**1 687**	**2 371**	**4 306**	**27 882**	**27 290**
Australia	1 074	1 218	593	94	146	30	500	470
Austria	1 384	1 027	1 218	139	255	158	1 656	987
Canada	5 277	4 764	4 197	43	297	935	3 444	4 110
Denmark	796	1 018	752	183	89	58	1 014	586
Finland	358	952	699	48	—	27	392	612
France	1 945	1 286	2 106	242	145	385	2 172	1 810
Japan	1 979	3 467	5 775	294	428	524	3 930	5 115
Netherlands	682	251	832	137	13	216	1 396	725
New Zealand	567	744	553	—	—	25	293	496
Norway	1 889	2 751	1 955	—	112	44	734	1 748
Sweden	1 574	876	1 530	110	293	312	2 663	1 247
United Kingdom	1 915	1 365	1 181	27	93	293	1 633	956
United States	1 353	2 973	6 767	150	373	745	4 883	5 171
Developing countries	**3 421**	**4 227**	**3 085**	**40**	**490**	**321**	**2 140**	**2 920**
Non-OPEC countries	2 676	2 684	2 667	40	248	240	1 597	2 545
Brazil	732	843	930	—	56	—	349	858
Mexico	1 282	568	363	—	25	120	434	338
Philippines	129	170	175	—	70	—	70	175
OPEC countries	745	1 543	418	—	242	81	543	375
Algeria	166	721	208	—	—	—	—	208
Venezuela	438	588	55	—	197	81	398	55
Communist countries	**248**	**30**	**75**	**15**	**—**	**—**	**65**	**75**
Hungary	174	—	—	15	—	—	65	—
International organizations	**6 454**	**5 058**	**5 936**	**473**	**462**	**766**	**5 710**	**4 653**
TOTAL	**33 976**	**34 279**	**40 982**	**2 215**	**3 323**	**5 393**	**35 797**	**34 938**

Central bank discount rates

	1977	1978	1979		1980			Current	
	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	end Sep	Oct 29 1980	effective since
United States	6.00	9.50	11.00	12.00	16.00a	11.00	11.00	11.00	Sep 26, 80
Canada	7.50	10.75	12.25	14.00	15.69	10.63	11.20	11.76	Oct 24, 80
Japan	4.25	3.50	5.25	6.25	9.00	9.00	8.25	8.25	Aug 20, 80
United Kingdom	7.00	12.50	14.00	17.00	17.00	17.00	16.00	16.00	Jul 3, 80
Belgium	9.00	6.00	9.00	10.50	14.00	13.00	12.00	12.00	Jul 31, 80
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.00	3.00	5.00	6.00	7.00	7.50	7.50	7.50	May 2, 80
Italy	11.50	10.50	10.50	15.00	15.00	15.00	16.50	16.50	Sep 29, 80
Netherlands	4.50	6.50	8.00	9.50	9.50	9.50	8.50	8.00	Oct 21, 80
Austria	5.50	4.50	3.75	3.75	6.75	6.75	6.75	6.75	Mar 21, 80
Denmark	9.00	8.00	11.00	11.00	13.00	13.00	12.00	11.00	Oct 27, 80
Finland	8.25	7.25	7.25	8.50	9.25	9.25	9.25	9.25	Feb 1, 80
Ireland	6.75	11.85	13.70	16.40	16.85	16.85	13.50	13.50	Sep 5, 80
Norway	6.00	7.00	7.00	9.00	9.00	9.00	9.00	9.00	Nov 30, 79
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	6.50	8.00	9.00	10.00	10.00	10.00	10.00	Jan 18, 80
Switzerland	1.50	1.00	1.00	2.00	3.00	3.00	3.00	3.00	Feb 28, 80
Argentina	165.27	108.19	107.04	89.90	74.98	85.86	71.96	71.96	Aug 27, 80
Brazil	28.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	14.00	14.50	14.50	14.50	20.50	19.50	17.50	17.50	Sep 13, 80
New Zealand	10.00	10.50	13.00	13.00	13.00	13.00	14.00	14.00	Jul, 80
Philippines	6.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	May 19, 78
Singapore	3.50	4.50	5.75	6.75	8.50	8.50	8.75	9.50	Oct 22, 80
South Africa	9.00	8.50	7.00	7.00	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	7.00	7.50	9.50	11.00	12.00	10.00	10.00	10.00	Jun 26, 80

a: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1977	1978	1979	1980						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	6.56	10.03	13.78	14.13	17.19	17.61	10.98	9.47	9.03	9.61	10.54
Canada	6.84	9.44	13.83	12.74	12.13	15.58	13.68	11.37	10.20	9.86	9.82
Japan	5.01	4.57	8.02	8.76	10.73	12.21	12.56	12.62	12.68	12.11	11.40
Australia	9.96	8.40	7.84	8.22	9.26	8.99	10.74	10.34	10.91	9.63	9.81
United Kingdom	4.81	10.00	14.87	16.12	15.00	16.06	15.90	14.06	15.06	14.87	14.90
Belgium	7.48	6.73	10.65	10.18	12.64	14.94	13.78	12.43	11.87	10.01	9.64
France	9.30	6.67	12.17	12.17	12.96	12.40	12.51	12.43	12.04	11.32	11.37
Germany	3.24	3.61	9.15	8.12	8.65	9.06	9.80	10.04	9.81	8.95	9.28
Italy	11.37	11.00	16.00	16.60	16.80	16.62	16.75	16.87	16.87	16.87	16.87
Netherlands	5.27	10.00	15.67	11.01	9.35	10.46	10.80	11.01	10.34	10.11	9.75
Austria	9.25	5.37	8.50	9.00	10.25	9.87	10.50	10.50	10.75	10.25	11.00
Finland	22.99	9.29	13.53	11.14	11.97	12.36	12.49	12.50	12.50	12.50	12.50
Ireland	8.00	12.12	16.88	16.88	24.00	17.62	17.38	17.38	16.81	13.75	13.62
Spain	7.22	16.75	9.61	11.96	15.25	14.76	17.81	14.22	12.71	12.57	13.16
Sweden	8.91	6.26	11.99	12.31	11.32	10.74	12.07	12.74	11.75	12.90	11.95
Switzerland	0.85	0.00	1.25	1.25	1.75	2.75	4.00	3.75	2.50	6.50	2.00
Argentina	n.a.	n.a.	78.22	61.14	56.92	56.66	58.14	64.92	83.39	52.89	51.36
Brazil	28.44	35.64	32.28	27.48	36.24	17.88	20.52	25.56	30.84	31.80	35.76
Hong Kong	4.87	9.67	14.19	15.75	13.87	13.62	12.37	8.00	7.25	8.75	8.31
Korea	14.40	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20	17.22
Philippines	14.44	13.22	16.25	12.21	14.09	15.45	13.24	11.33	10.44	6.47	9.71
Singapore	3.59	4.98	10.17	9.59	9.55	10.47	11.19	9.42	9.15	8.97	10.75
South Africa	7.65	7.11	3.81	4.01	3.94	4.06	4.23	4.37	4.26	4.15	4.35
Euro-dollars	6.94	10.80	14.41	14.87	16.13	16.90	9.95	9.58	9.13	9.86	10.96

Treasury bill rates

bond-equivalent yields, at or near end of month

	1977	1978	1979	1980						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	6.33	9.42	12.39	14.92	15.85	10.29	8.05	7.90	9.12	10.70	11.09
Canada	7.17	10.46	13.66	13.55	15.24	15.15	11.58	10.24	10.06	10.49	10.95
Japan	4.15	3.39	5.68	5.68	5.68	5.68	6.82	6.82	6.82	6.82	6.44
Australia	8.35	8.35	9.31	9.52	10.77	11.12	10.83	10.79	10.64	10.53	10.56
United Kingdom	6.42	12.01	16.45	16.71	16.95	16.73	16.75	16.29	14.69	15.00	14.37
Belgium	9.25	9.25	14.40	15.00	17.50	17.00	15.50	13.75	12.75	12.35	12.35
Ireland	6.74	11.83	16.37	16.45	16.76	16.88	16.69	16.57	16.46	13.47	13.43
Italy	12.81	12.81	15.62	15.62	15.87	16.12	15.75	16.12	15.48	15.42	16.94
Netherlands	6.00	9.50	12.75	10.50	10.75	10.25	10.87	10.37	9.87	10.25	9.25
Sweden	9.21	5.84	9.74	10.79	10.78	10.78	12.89	12.89	12.84	12.84	12.90
Argentina	109.06	82.55	71.04	61.83	59.76	58.55	64.01	70.26	70.43	48.60	51.03
Brazil	38.08	41.21	27.84	23.85	25.90	27.33	24.62	33.84	39.14	42.66	43.70
Korea	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01	19.50
Mexico	n.a.	12.75	17.89	19.30	21.38	22.33	22.34	21.55	20.91	21.36	n.a.
New Zealand	7.50	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	10.04	12.08	12.63	12.33	12.31	12.31	12.31	12.46	12.54	12.66	12.67
Singapore	3.17	4.01	6.18	6.74	6.92	7.21	7.10	6.85	6.79	6.89	6.99
South Africa	8.17	7.61	4.30	4.38	4.39	4.47	4.78	4.72	4.47	4.64	4.84

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1977	1978	1979	1980						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	6.84	10.57	13.70	15.45	18.44	13.70	7.90	8.03	8.82	10.91	12.24
Canada	7.25	10.62	14.15	13.75	16.00	15.40	11.75	11.50	10.60	10.75	11.10
Japan	5.89	4.64	8.01	9.86	12.68	12.12	12.53	10.87	11.54	10.95	11.31
Australia	9.75	9.10	10.30	10.40	11.75	14.00	13.50	13.00	12.50	12.40	12.00
United Kingdom	6.50	12.50	17.00	18.31	18.12	17.12	17.00	17.00	14.87	16.69	15.87
Belgium	9.50	9.25	14.45	15.00	17.50	17.00	15.75	14.00	13.00	12.60	12.60
France	9.19	6.44	12.62	13.62	13.69	12.56	12.37	12.25	11.44	11.62	12.31
Germany	3.60	3.70	8.70	9.50	9.80	9.97	10.20	9.95	9.30	8.90	9.10
Ireland	6.75	13.00	18.12	18.37	19.12	18.75	17.88	17.50	16.75	14.50	13.75
Italy	11.75	11.37	17.12	17.62	17.87	16.50	17.12	17.25	17.25	17.25	18.75
Netherlands	6.25	10.50	13.00	12.87	11.25	10.37	11.25	10.62	9.37	10.75	10.37
Spain	12.06	22.80	13.20	13.40	15.50	17.50	18.70	16.90	15.00	14.60	14.40
Switzerland	2.02	0.50	6.12	5.25	7.37	6.37	5.62	5.87	5.25	6.12	5.87
Hong Kong	5.73	11.82	14.37	15.50	15.87	14.75	12.12	8.75	7.94	9.25	10.44
Korea	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01	19.27
New Zealand	11.87	12.00	16.00	15.75	16.00	15.25	14.25	13.50	13.25	13.40	14.00
Philippines	11.96	11.48	10.41	9.99	11.49	11.79	11.06	12.22	9.96	10.92	10.97
Singapore	4.81	7.38	10.12	10.25	11.50	11.31	10.75	9.75	9.50	9.50	11.62
South Africa	9.00	7.85	4.72	4.93	5.03	5.55	5.34	5.24	4.93	4.93	5.00

Commercial bank deposit rates

at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	6.80	10.90	13.55	15.55	18.50	12.95	8.70	8.90	8.90	11.55	12.25
Canada	7.25	10.45	14.05	13.75	15.50	15.35	11.50	11.00	10.50	10.75	10.65
Japan*	3.25	2.50	8.37	9.80	13.50	13.00	13.20	11.00	11.50	11.00	11.30
Australia	9.50	8.50	10.25	10.50	12.35	13.00	13.15	13.33	12.41	12.03	11.33
United Kingdom	6.37	12.25	16.81	17.75	18.12	17.16	17.00	16.88	15.87	16.75	15.94
Belgium	9.50	9.87	14.50	15.12	17.50	15.00	15.75	14.00	12.50	12.63	12.50
France	9.00	6.50	12.50	12.75	12.50	12.50	12.25	11.75	11.25	11.62	11.75
Germany	3.40	3.50	7.75	8.50	9.25	9.25	9.25	9.00	8.60	8.40	8.40
Italy	17.00	12.50	13.25	13.25	13.20	13.25	13.25	13.25	13.25	13.25	13.25
Netherlands	7.00	11.62	13.50	13.00	11.75	10.75	11.50	10.75	9.50	10.62	10.25
Austria	9.00	6.75	8.50	8.75	9.75	9.87	10.00	10.37	10.75	11.37	11.62
Denmark	8.00	7.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	11.00
Finland	4.25	3.25	4.25	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Ireland	6.87	12.75	17.87	18.00	19.12	18.75	17.62	17.37	16.25	14.00	13.87
Norway	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	6.25	8.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75
Switzerland	1.12	0.12	4.75	4.75	6.75	5.50	4.75	5.25	4.75	5.00	5.25
Argentina	n.a.	86.63	72.64	60.71	55.72	54.26	59.01	68.62	70.57	53.05	50.61
Brazil	39.60	46.80	45.00	43.68	44.76	44.76	43.68	43.80	45.24	47.40	49.56
Hong Kong	1.75	4.50	9.25	9.25	10.50	10.50	9.00	6.50	6.00	6.00	6.00
Korea	13.20	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20	17.22
Mexico	11.00	12.00	16.75	18.15	20.71	22.03	21.11	19.13	18.20	18.98	n.a.
New Zealand	11.00	12.00	15.90	14.25	14.00	14.00	13.75	13.25	13.25	13.30	13.05
Philippines	8.50	8.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	14.00	14.00
Singapore	5.31	7.31	10.31	10.75	11.81	10.75	10.19	9.06	8.69	9.38	11.44
South Africa	8.70	7.30	4.82	4.75	4.68	5.35	5.22	5.15	4.75	4.77	4.90
Venezuela	7.00	7.25	15.00	15.00	17.00	17.00	13.00	12.00	12.00	12.00	12.00

*revised

Commercial bank lending rates to prime borrowers

at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	7.75	11.75	15.25	16.75	19.50	18.50	14.00	11.50	11.00	11.50	13.00
Canada	8.25	11.50	15.00	15.00	16.50	16.50	13.75	13.25	12.50	12.50	12.25
Japan	5.47	4.50	6.51	6.95	7.70	8.43	9.02	9.27	9.34	9.25	8.85
Australia	11.50	11.00	10.75	11.25	12.25	12.50	12.50	12.50	12.50	12.50	12.50
United Kingdom	8.00	13.50	18.00	18.00	19.00	18.50	18.50	17.50	17.50	17.50	17.50
Belgium	10.00	10.00	15.25	16.50	18.75	18.75	18.75	17.25	17.00	15.75	15.75
France	11.35	10.95	13.65	14.65	14.65	14.15	14.15	14.15	13.90	13.90	13.90
Germany	6.00	5.50	9.75	9.75	10.50	10.50	11.50	11.50	11.50	11.50	11.50
Italy	16.00	15.00	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	21.00
Netherlands	7.00	12.00	15.00	14.25	13.25	12.00	12.75	12.00	11.25	11.75	11.25
Austria	9.75	8.75	8.50	9.50	9.50	11.00	11.00	11.00	11.00	11.00	12.00
Denmark	12.50	10.00	13.75	15.75	15.75	15.75	15.75	15.75	15.75	15.75	14.75
Finland	8.85	7.87	9.06	9.77	9.82	9.85	9.84	9.86	9.84	n.a.	n.a.
Ireland	8.25	13.75	16.00	16.00	16.00	18.50	18.50	18.50	17.50	15.50	15.50
Norway	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	12.50
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	8.50	10.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75
Switzerland	5.75	5.00	5.00	5.50	5.50	5.75	5.75	5.75	5.75	5.75	5.75
Argentina	152.08	86.75	80.00	65.00	58.50	60.50	70.50	75.50	74.50	58.50	53.00
Brazil	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	4.75	8.75	14.50	14.50	16.00	16.00	14.50	12.00	10.00	10.00	10.50
Korea	15.00	18.50	18.50	24.50	24.50	24.50	24.50	23.50	23.50	23.50	21.50
Mexico	17.00	17.50	19.00	19.00	21.39	21.63	22.39	22.47	22.53	22.82	23.51
New Zealand	8.50	9.75	11.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	13.00
Philippines	14.00	14.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Singapore	7.02	7.65	9.50	10.55	11.28	12.10	11.98	11.40	11.10	10.95	11.30
South Africa	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	10.25	13.00	13.00	14.00	17.00	12.00	12.00	12.00	12.00	12.00

Domestic government bond yields

long-term issues, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	7.97	9.00	10.20	12.60	12.50	10.38	10.24	9.90	10.70	11.46	11.90
Canada	8.77	9.68	11.32	12.91	13.20	12.01	11.39	11.29	12.32	12.42	12.98
Japan	6.40	6.40	8.63	9.17	9.76	9.65	8.75	8.45	8.63	8.77	8.92
Australia	9.50	8.90	10.45	11.50	11.75	11.85	11.85	11.80	11.80	11.85	12.00
United Kingdom	10.53	12.75	13.83	13.89	13.98	13.44	13.30	13.06	12.52	13.27	12.69
Belgium	8.76	8.80	11.13	11.93	12.45	12.02	12.26	11.84	11.77	12.08	12.43
France	11.07	9.94	12.59	14.11	14.44	13.94	13.49	13.34	13.43	13.46	13.85
Germany	5.52	6.65	7.91	8.86	9.72	8.93	8.20	8.00	7.78	7.95	8.24
Italy	10.82	10.89	11.28	11.56	11.63	11.63	11.64	11.80	12.06	12.00	12.12
Netherlands	8.11	8.48	9.29	10.37	11.45	10.59	9.97	9.95	9.66	10.08	10.25
Austria	9.00	7.91	8.20	8.51	8.93	9.52	9.26	9.04	9.21	9.62	n.a.
Denmark	16.83	17.27	18.28	19.71	20.37	20.57	20.27	20.90	19.95	20.71	20.29
Finland	10.25	9.19	9.58	10.13	10.38	10.59	10.46	10.44	10.49	10.52	10.35
Ireland	11.30	13.44	16.64	15.95	15.95	16.20	16.19	15.78	14.64	14.49	n.a.
Norway	8.37	8.19	10.04	10.15	10.20	10.26	10.31	10.16	10.21	10.73	n.a.
Sweden	9.84	10.09	11.22	11.24	11.26	11.33	11.31	11.38	11.38	11.46	n.a.
Switzerland	3.75	3.03	4.20	5.03	5.09	4.96	4.82	4.72	4.59	4.87	4.85
Argentina	181.65	112.18	47.94	45.02	54.02	59.93	47.21	57.33	81.94	42.24	40.46
New Zealand	10.00	10.02	12.98	13.45	13.57	13.47	13.44	13.49	13.40	12.98	n.a.
Philippines	13.40	13.40	13.20	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40
South Africa	10.75	9.85	9.44	9.33	9.32	9.56	9.69	9.85	10.00	10.05	10.62
Venezuela	7.24	7.24	7.29	7.25	7.33	7.40	7.45	7.45	7.45	7.37	7.40

Domestic corporate bond yields

long-term issues, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	8.30	9.25	10.75	12.88	13.75	10.75	11.20	10.63	11.65	12.50	12.88
Canada	9.71	10.34	12.07	13.35	13.90	12.84	12.29	12.14	13.19	13.35	13.74
Japan	6.68	6.94	8.34	8.12	8.75	9.50	8.68	8.23	8.20	8.24	8.44
Australia	11.00	10.25	11.65	12.60	12.75	13.10	13.25	13.15	13.15	13.25	13.35
United Kingdom	11.88	13.53	14.96	14.55	14.99	14.66	14.39	13.98	13.33	13.90	13.78
Belgium	9.85	9.58	11.93	12.22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	12.09	10.27	12.92	14.57	14.80	14.37	14.39	14.16	13.93	13.86	14.03
Germany	5.92	6.80	8.20	8.50	9.60	10.00	9.40	8.90	8.40	8.10	8.40
Italy	10.71	10.12	10.22	10.56	11.12	11.85	12.14	14.12	14.19	13.73	13.31
Netherlands	7.90	8.62	9.95	10.54	12.05	10.85	10.43	9.96	9.83	10.33	10.49
Norway	8.59	8.37	10.53	10.75	10.80	10.85	10.91	10.46	n.a.	10.70	n.a.
Spain	11.58	12.17	11.77	11.18	11.19	11.45	10.89	10.83	10.90	n.a.	n.a.
Sweden	9.83	10.03	10.21	10.78	10.85	11.00	11.07	11.71	11.80	11.90	11.94
Switzerland	4.96	4.85	5.53	5.63	6.06	5.77	5.56	5.64	5.58	5.76	5.83
Korea	19.60	24.00	32.50	31.00	31.00	31.00	31.00	30.50	29.00	28.70	26.00
Mexico	17.56	20.37	21.99	23.55	24.49	26.26	24.70	23.75	24.99	26.26	26.13
Venezuela	10.39	12.43	14.55	13.87	14.86	15.94	14.40	12.81	12.82	12.41	12.40

Morgan Guaranty Trust Company of New York

23 Wall Street, New York, N.Y. 10015

Midtown banking offices

522 Fifth Avenue at 44th Street, New York, NY 10036
616 Madison Avenue at 58th Street, New York, NY 10153
40 Rockefeller Plaza at 50th Street, New York, NY 10020

Banking offices abroad

London, St. Helier, Paris, Brussels, Antwerp, Amsterdam (Bank Morgan Labouchere N.V.), Frankfurt am Main, Düsseldorf, Zurich, Milan, Rome, Madrid, Tokyo, Seoul, Hong Kong, Singapore, Nassau, Buenos Aires

Representative offices

Beirut, Sydney, Jakarta, Kuala Lumpur, Manila, São Paulo, Caracas

Trust and Investment Division

9 West 57th Street, New York, NY 10019; London, Paris, Tokyo, Hong Kong

Subsidiaries

Morgan Guaranty International Bank: Miami, Houston, San Francisco
J. P. Morgan of Canada Limited, Toronto
Morgan Guaranty Ltd, London
Morgan & Cie S.A., Paris
J. P. Morgan (Suisse) S.A., Geneva
Morgan Guaranty S.A.E., Madrid
Morgan Guaranty Pacific Ltd., Singapore
Morgan Guaranty Finance Limited, Hamilton, Bermuda

Member, Federal Deposit Insurance Corporation. Printed in U.S.A.